

1 **WHAT IS CLAIMED IS:**

2 1. A golf club head comprising:

3 a body having a shank, a hosel and a face, the shank formed on the body
4 and the hosel defined at the shank of the body and adapted to connect to a shaft
5 of a golf club; the face formed on the body and adapted to hit a golf ball; and
6 a faceplate with a sweet spot and a softened region, the softened region
7 formed around the sweet spot in the faceplate;

8 wherein the softened region is softer than the sweet spot.

9 2. The golf club head as claimed in claim 1, wherein a hardness
10 difference between the softened region and the sweet spot is from 20 to
11 22 H_RC.

12 3. The golf club head as claimed in claim 2, wherein the faceplate is
13 made out of maraging steel.

14 4. The golf club head as claimed in claim 2, wherein the faceplate is
15 made out of titanium alloy.

16 5. The golf club head as claimed in claim 2, wherein the faceplate is
17 made out of stainless steel.

18 6. A method for processing the faceplate as claimed in claim 1, and the
19 method comprising:

20 selecting a high strength material to fabricate the faceplate;

21 locating a copper tubing over the region of the faceplate to be softened;

22 applying a high-frequency current to the copper tubing to heat the region
23 of the faceplate to be softened; and

24 removing the copper tubing from the heated region of the faceplate.

- 1 7. The method for processing the faceplate as claimed in claim 6,
2 wherein a frequency of the high-frequency current is 50 to 2000 Hz.
- 3 8. The method for processing the faceplate as claimed in claim 6,
4 wherein a power of the high-frequency current is 10 to 150 kilowatts (kW).
- 5 9. The method for processing the faceplate as claimed in claim 6,
6 wherein an acting time that the high-frequency current is applied is 0.5 to 10
7 seconds.
- 8 10. The method for processing the faceplate as claimed in claim 6,
9 wherein an outer diameter of the copper tubing is 3 to 8 millimeters (mm).
- 10 11. The method for processing the faceplate as claimed in claim 6,
11 wherein a distance between the copper tubing and the faceplate during
12 processing is 1.5 to 3 mm.